



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re PATENT application of:

Applicants: Kobben et al.
Application No.: 10/087,613
Filing Date: March 1, 2002
Title: CUSHIONING CONVERSION MACHINE HAVING HEAVY DUTY CHARACTERISTICS
Examiner: Christopher R. Harmon
Art Unit: 3721
Attorney Docket: RANPP0310USA

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SUPPLEMENTAL APPEAL BRIEF
(Reinstated Appeal under 37 C.F.R. §1.193(b)(2)(ii))

Mail Stop Appeal Brief-Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

The undersigned submits this supplemental brief in triplicate for the Board's consideration in connection with a Request for Reinstatement of Appeal in accordance with 37 C.F.R. §1.193(b)(2)(ii). The Appeal Brief filed on January 23, 2004 is incorporated herein by reference.

I. Real Party in Interest

The real party in interest in the present appeal is the assignee, Ranpak Corp.

II. Related Appeals and Interferences

Neither appellants, appellants' legal representative, nor the assignee of the present application are unaware of any appeals or interferences which will directly affect, which will be directly affected by, or which will have a bearing on the Board's decision in the pending appeal.

III. Status of Claims

Claims 14-21 have been finally rejected and are the subject of this appeal. A correct copy of these claims is reproduced in Appendix A.

IV. Status of Amendments

There are no outstanding amendments.

V. Background

In the process of shipping an item from one location to another, protective packaging material is often placed in the shipping container to fill any voids or to cushion the item during the shipping process. Paper in sheet form, preferably converted into a relatively low density pad-like cushioning or dunnage product, is an exemplary packaging material. This conversion may be accomplished by a cushioning conversion machine, such as that disclosed in the applied prior art reference, U.S. Patent No. 5,873,809 to Kempster et al. (referred to as "Kempster").

Kempster discloses a packaging material making machine with a separate pulling means (including wheels 20A and 20B) arranged to pull sheet material, such as paper 10, from a roll 12 to a former 16 and a connecting means in the form of a pair of meshing gear wheels 24 located downstream of the pulling means. The gear wheels are spring biased towards each other, although no springs are shown in the drawings. The action of the gear wheels 24 deforms the surfaces of the paper 10 that pass between them to hold the dunnage together.

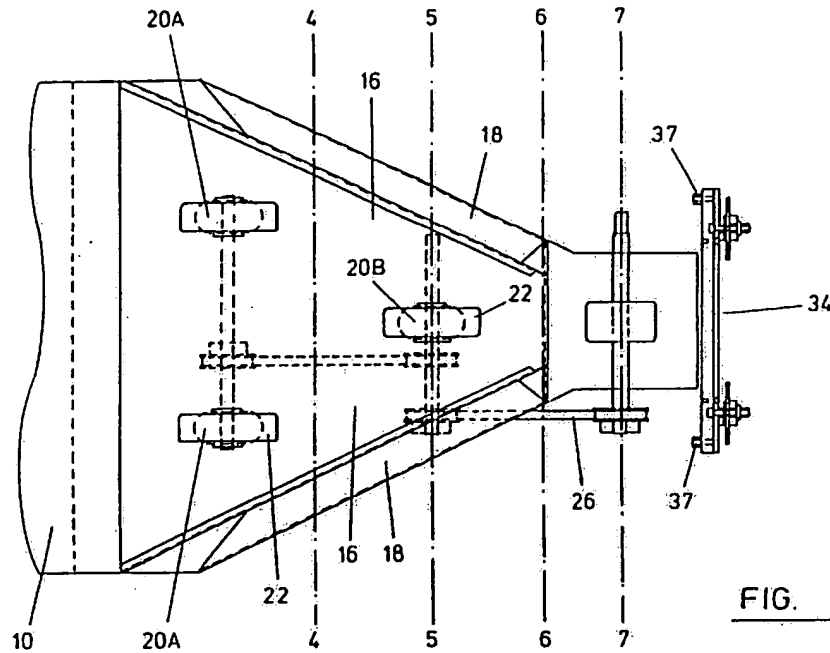


FIG. 1

As the gear wheels 24 are spring loaded towards each other, they can move apart occasionally, if required, to allow the randomly crumpled paper to be pushed through. As seen in Fig. 7, the resulting dunnage product has lateral pillow-like portions 32 and a narrow central connecting band 30 that is passed between the gear wheels to connect overlapped layers of paper therein to maintain the shape of the dunnage product. (See Kempster, col. 1, lines 4-26, and generally col. 3, line 15 through col. 4, line 5.)

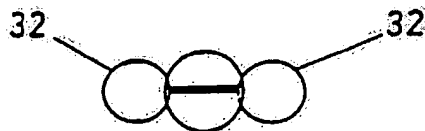


FIG. 7

VI. Summary of Invention Defined in the Claims on Appeal

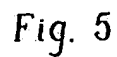
The present invention improves upon the gear assembly of Kempster. In particular, the claimed invention provides at least one significant advantage over Kempster, namely the ability to quickly separate the gears to clear a jam.

The claims define a cushioning conversion machine 10 having a conversion assembly 20 that converts sheet stock material 16 into a cushioning product. The conversion assembly includes a frame 206 and a connecting assembly 36. (See generally, specification pp. 8-9.)

In the embodiment illustrated in Figs. 5, 8, and 9, reproduced below and highlighted in color to readily identify the different components across the different figures, the connecting assembly 36 includes first and second rotating feed members, in the form of a pair of cooperating and opposed gears 140 and 142. The gears 140 and 142 pull the stock material 16 through a forming assembly 32, and also connect, as by coining or stitching, for example, the formed stock material 16 along a central band to form a connected strip of cushioning. In this sense "connect" means to form the strip in such a manner that it will retain its cushioning properties as opposed to reverting to the original flat form of the stock material, thereby holding the three-dimensional crumpled or crinkled shape of the strip. (Specification, p. 14, lines 21-26.)

The gears 140 and 142 comprise a rotating driving toothed-wheel gear-like member 140 and a rotating idler toothed-wheel gear-like member 142. The driving gear-like member 140 is mounted on a driving shaft 150 which is mounted in a frame 152 supported by the housing 38 of the conversion assembly 20, specifically the frame end plate 206. The driving shaft 150 is driven by the motor 40. (Specification, p. 14, lines 21-26.)

The rotating idler gear-like member 142 is mounted on an idler shaft 154 (Fig. 8) rotatably mounted in a carrier, which in the illustrated embodiment is a generally L-shaped pivot member 160, for movement between an operative position (Fig. 8) and an



The pivot member 160, and consequently the rotating gear 142, is resiliently urged towards the driving gear 140 by a biasing member, such as a spring 170, a coil spring in the illustrated embodiment, disposed between the frame 206 and the pivot member 160. The spring 170 exerts a biasing force against the pivot member 160 in the operative position, and the resilient spring biasing force substantially continuously maintains the rotating gear 142 in cooperative relationship with the driving gear 140 during a conversion process. (Specification, p. 15, lines 3-9.)

The spring 170 is carried by a mounting assembly, generally indicated by reference number 180. More particularly, the spring 170 is interposed between a bearing plate 182 and an adjustable stop 184 of the mounting assembly 180. The mounting assembly 180 is movable between a locked condition whereat the carrier or pivot member 160 may pivot about the frame over a prescribed angular range, and a

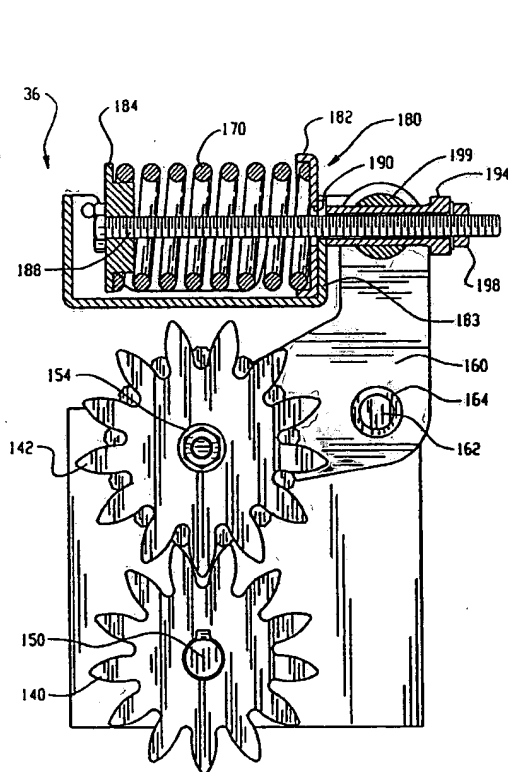


Fig. 8

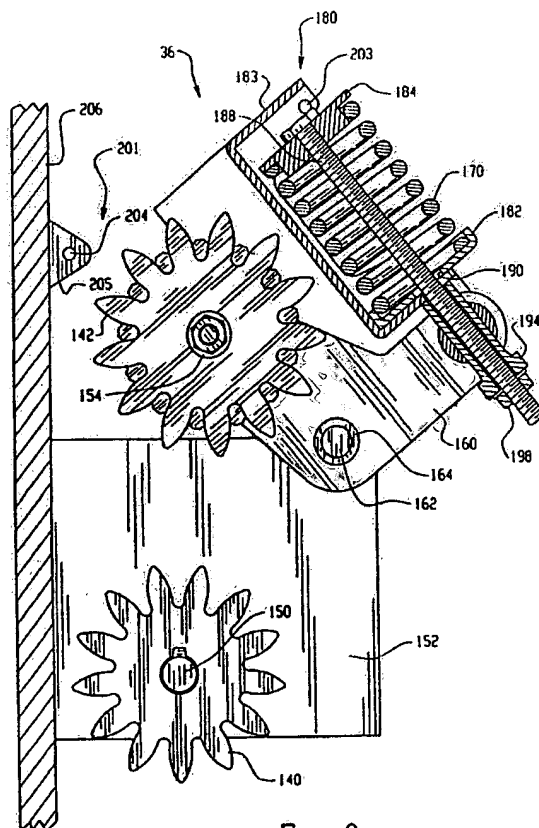


Fig. 9

released condition whereat the mounting assembly 180 is free to pivot about the frame 206, and carry the pivot member 160 with it. The bearing plate 182 is connected to a mounting bracket 183, which either limits movement in the pivot member 160 to within a prescribed range of positions or permits its free rotation. (Specification, p. 15, lines 10-17.)

The support shaft 162, which supports the pivot member 160, is mounted between side plates of the frame 152 to permit pivoting of the mounting bracket 183 about the axis of the support shaft between the operating position (Fig. 8) and a release position (Fig. 9). The mounting bracket, and thus the pivot member 160, is retained in the operating position by a releasable locking device 201. The locking device may be in the form of a quick connect/disconnect pin 202 that may be inserted through aligned openings 203 and 204 respectively provided in the mounting bracket 183 and a mounting lug 205. The mounting lug may be in the form of a clevis mounted to the machine frame end plate 206 (Figs. 2 and 9). (Specification, p. 16, lines 10-19.)

Thus, the releasable locking device 201, in a locked position, resiliently holds the pivot member 160 in its operative position thereby biasing the idler gear 142 towards the driven gear 140 to apply a pinch force to stock material being fed between the gears 140 and 142. In an unlocked position, the released locking device 201 allows the pivot member 160 to be pivoted from its operative position to its inoperative position to move the idler gear 142 away from the driven gear 140, for clearing a jam, for example. (Specification, p. 16, line 30 through p. 17, line 9.)

VII. Applied Prior Art

U.S. Patent No. 5,873,809 (referred to herein as "Kempster") and
U.S. Patent No. 4,032,133 (referred to herein as "Steffens").

VIII. Issue

Whether claims 14-21 were properly rejected under 35 U.S.C. § 103(a) as being unpatentable over Kempster in view of Steffens.

IX. Grouping of Claims

Claims 14-18 and 21 stand or fall with claim 14.

Claims 19 and 20 stand or fall with claim 19.

X. Argument

It is respectfully submitted that the Examiner has failed to establish a *prima facie* case for obviousness, no motivation having been found for modifying Kempster in the proposed manner in view of Steffens. Therefore, the rejection of claims 14-21 is improper and should be reversed for at least the following reasons.

A. *First, a person of ordinary skill in the art of Kempster would not even consider Steffens*

A person of ordinary skill in Kempster's art would not have considered the teachings of Steffens because Steffens relates to a different art and addresses different problems. See MPEP §2141.01 (a). Kempster relates to the art of cushioning conversion machines and the production of dunnage for packaging, whereas Steffens relates to a buckle-type paper folding machine.

Moreover, Steffens neither identifies a problem of Kempster nor suggests an improvement to Kempster that would lead the skilled person of Kempster's art to consider Steffens. Steffens addresses problems of buckle-type folding machines that are not applicable to Kempster's cushioning conversion machine. (See Steffens, col. 1, lines 11-23, and col. 1, line 60 to col. 2, line 26.) For example, Steffens addresses problems associated with adjusting a series of rollers while maintaining the spacing of the rollers with respect to one or more fold plates. (See Steffens, col. 1, line 45 to col.

2, line 20.) Since Kempster uses one pair of gears to feed stock material, and no teaching or suggestion of maintaining a particular spacing with a fold plate or any other member has been found, it is respectfully submitted that a person of ordinary skill in the art would not be motivated by Steffens to make any modification to Kempster's machine. Moreover, since in Kempster only one gear of the pair is adjustable, adjustment would not appear to be the problem for Kempster that it is for Steffens. Thus, a person of ordinary skill in Kempster's art would not be motivated to even consider Steffens.

B. Second, even if the teachings of Steffens were considered alongside those of Kempster, no motivation has been found for combining their teachings.

The Examiner has taken the position that Kempster discloses all of the claim limitations except those related to how the claimed feed members are mounted, but that it would have been obvious to mount feed members in the manner taught by Steffens to arrive at the claimed invention.

Kempster et al. disclose a cushioning conversion machine comprising a frame; first and second rotating feed members 24 resiliently biased towards one another by springs; see figure 10. The lower feed member is driven and the upper is positioned upon an idler shaft. The members form a pinch force on the material fed between.

Kempster et al. do not disclose exactly how the biased members are mounted, however Steffens et al. teach rotating feed members 34, 38 in pivotal carriers 94, 96 mounted on pivots biased by biasing members/springs 80. The releasable locking device resiliently holds the feed members/rollers 34, 48 in position in a locked position. When released/unlocked it allows for pivoting away in case of a paper jam etc. see column 4, lines 35-38.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to mount the rotating members as taught by

Steffens in the invention of Kempster et al. in order to provide biasing towards one another.

Paper No. 21, pp. 2-3. The Examiner's only alleged motivation for the proposed combination is that a person of ordinary skill in the art would modify Kempster in view of Steffens "in order to provide biasing [of Kempster's gear wheels] towards one another." (Paper No. 21, p. 3.)

But Kempster already discloses biasing one gear wheel toward the other. Since Kempster already discloses biasing, Steffens's teaching of biasing adds nothing to the teachings of Kempster. Thus the skilled person would not be motivated to make any changes at all to Kempster's machine. The Examiner's statement of the alleged motivation is not a reason for making the proposed combination. It is respectfully submitted that motivation for the proposed combination does not exist.

- C. *Finally, even if the teachings of Kempster and Steffens were combined, the claimed invention could not result because neither reference teaches or suggests the claimed locking device.*

Although no springs or mounting structure is shown in Kempster's drawings, including FIG. 10 cited by the Examiner, Kempster's specification says that the gear wheels 24 are spring biased towards each other to feed a narrow central strip

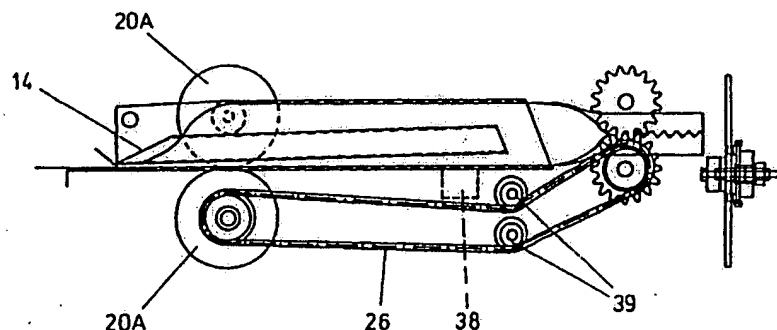
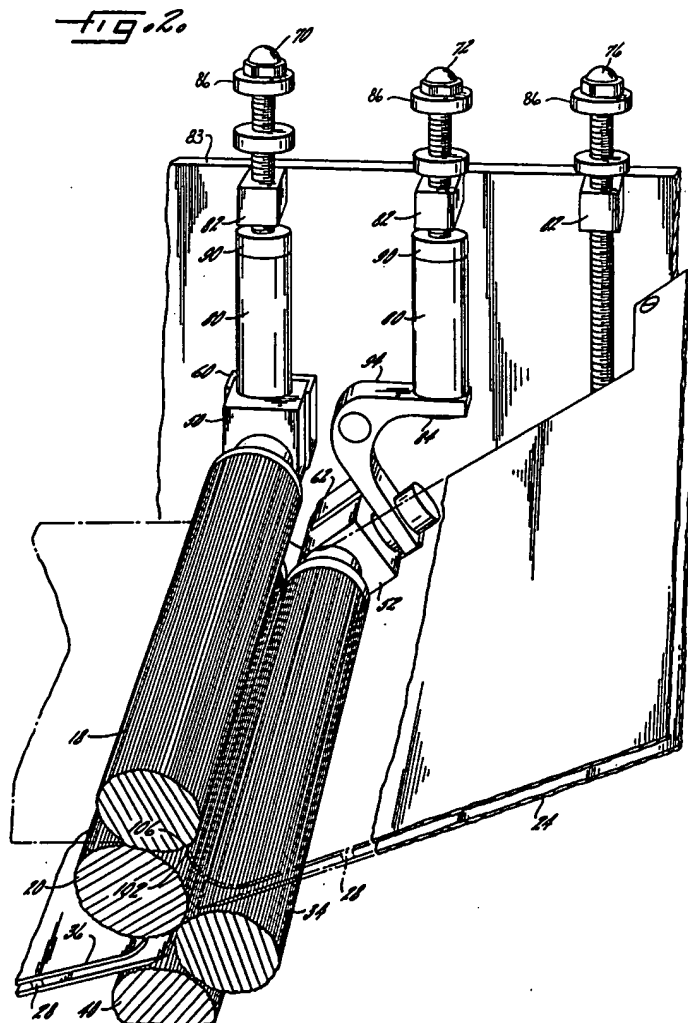


FIG. 10

therethrough. (Kempster, col. 3, lines 34-35). Presumably the springs allow the gear wheels to give to accommodate the random crumpling that occurs along the strip, while remaining sufficiently engaged to feed the strip of stock material therebetween. This allows the pad to have varying thickness.

Kempster does not disclose how the biased gear wheels are mounted, and thus does not disclose the pivotally mounted carrier or the releasable locking device set forth in claim 14. The Examiner implicitly agrees, by taking the position that Steffens's rocker arms 94, 96, 98, 100 read on the claimed carrier, and Steffens's adjustable collar 90 reads on the claimed releasable locking device.



However, no teaching or suggestion has been found in Steffens to indicate that Steffens's pivotable rocker arms 94, 96, 98, 100 are movable between an operative position and an inoperative position. In fact, no "inoperative" position has been found. The undersigned respectfully submits that Steffens's rocker arms 94, 96, 98, 100 pivot between operative positions, and no provision has been made for moving the rocker arms to an inoperative position.

Furthermore, no teaching or suggestion has been found for a releasable locking device that would allow Steffens's rocker arms to move to an inoperative position when

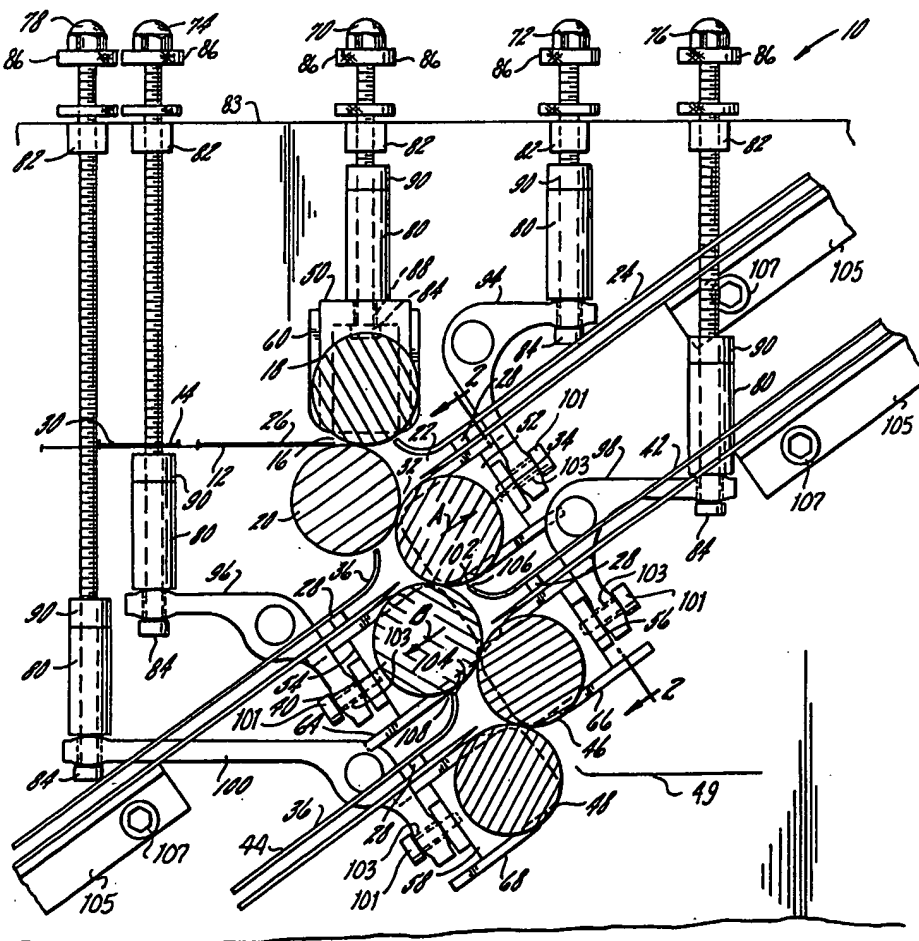


FIG. 1.

unlocked. While Steffens suggests adjusting collars 90 to adjust the magnitude of the biasing force applied by the resilient sleeves 80 (Steffens, col. 3, lines 45-52), no teaching or suggestion has been found for adjusting the collars 90 to allow the rocker arms to move to an inoperative position.

Thus even if the teachings of the applied references were combined, the claimed invention would not result because both Kempster and Steffens fail to teach or suggest the locking device, one which in an unlocked position allows a carrier to be pivoted from its operative position to its inoperative position. Therefore, a person skilled in the art who combines the teachings of Kempster and Steffens could not achieve the machine defined in claim 14.

The same line of reasoning applies to claim 19. Not only has no motivation been found for the combination of the references, but even if the references were combined both references also fail to teach or suggest the additional claim limitations found in claim 19.

Specifically, no teaching or suggestion has been found in the applied references for a mounting assembly for the rotating feed member carrier, where (a) when the locking device is in its locked condition the carrier can pivot about the frame over a prescribed angular range, and (b) when the locking device is in its released condition the mounting assembly is free to pivot about the frame, carrying the carrier along with it, as set forth in claim 19.

Even if Steffens's adjusting collars 90 and adjusting screws 72, 74, 76, 78 were construed to be a "locking device" as defined in claim 14, Steffens does not appear to teach or suggest the mounting assembly of claim 19. This is because if Steffens's adjusting collars 90 were loosened as much as possible, "unlocked" in the Examiner's construction, Steffens's adjusting screws 72, 74, 76, 78 would not allow free pivoting of Steffens's rocker arms 94, 96, 98, 100. While it probably is possible to disassemble Steffens's adjusting screws 72, 74, 76, 78 from respective rocker arms 94, 96, 98, 100 to allow the rocker arms to pivot freely, there simply is no teaching or suggestion for doing so. Pivoting movement of the rocker arms will be limited by the elongated holes

103 in the rocker arms, the size of the shaft of the adjusting screws, the head 84 on the adjusting screw, and the adjusting collar 90 and extension 82 of the frame 83 that supports the adjusting screws.

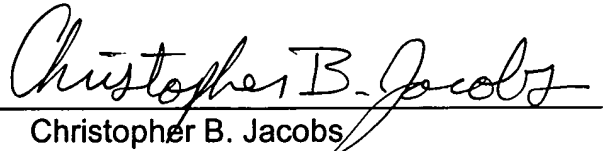
Removing the adjusting screws entirely would allow the rocker arms to pivot freely, but that would be contrary to the teachings of Steffens (see Steffens, FIG. 1, for example). Moreover, it is respectfully submitted that the time-consuming task of disassembling Steffens's system for adjusting the amount of biasing force would discourage a person of ordinary skill in Kempster's cushioning machine art from adopting such a system without some reason for doing so. Thus, Steffens does not appear to disclose the claimed mounting assembly, and even if the teachings of the references were combined, the claimed machine would not result.

XI. Conclusion

In view of the foregoing, it is respectfully submitted that the claims are patentable over the applied art and that the final rejection should be reversed.

Respectfully submitted,

RENNER, OTTO, BOISSELLE & SKLAR, L.L.P.

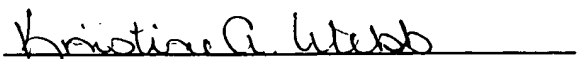
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I hereby certify that on the date shown below this correspondence (along with any paper or item referred to as being attached or enclosed) is being [X] deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Mail Stop Appeal Brief - Patents, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 or [] facsimile transmitted to the U.S. Patent and Trademark Office (703-872-9306).

Date: March 11, 2004


Kristine A. Webb

Appendix A
Claims on Appeal

14. A cushioning conversion machine comprising
a conversion assembly which converts sheet stock material into a three-dimensional cushioning product, the conversion assembly including a frame and a connecting assembly, the connecting assembly comprising:

first and second rotating feed members, the first of which is mounted in a carrier pivotally mounted to the frame for movement between an operative position and an inoperative position;

a biasing member disposed between the frame and the carrier for exerting a biasing force against the carrier when the carrier is in its operative position;

a releasable locking device which, in a locked position, resiliently holds the carrier in its operative position thereby to bias the first rotating feed member towards the second rotating feed member, and in an unlocked position allows the carrier to be pivoted from its operative position to its inoperative position to move the first rotating feed member away from the second rotating feed member.

15. A cushioning conversion machine as set forth in claim 14, wherein the carrier is pivotally connected to a pivot shaft and rotatably supports an idler shaft, the idler shaft carrying the first rotating feed member.

16. A cushioning conversion machine as set forth in claim 15, further including a driving shaft rotatably mounted to the frame and having the second rotating feed member carried thereon.

17. A cushioning conversion machine as set forth in claim 16, wherein the carrier, when in its operating position, is resiliently biased to urge the idler shaft and the first feed member carried thereon toward the driving shaft and the second feed member carried thereon so as to apply a pinch force to stock material being fed between the feed members.

18. A cushioning conversion machine as set forth in claim 16, wherein, when the releasable locking device is in its unlocked position, the carrier is selectively adjustable in such a manner that the idler shaft is movable towards and away from the driving shaft for adjusting the distance between the first rotating feed member and the second rotating feed member.

19. A cushioning conversion machine as set forth in claim 14, further including a mounting assembly movable between a locked condition whereat the carrier may pivot about the frame over a prescribed angular range, and a released condition whereat the mounting assembly is free to pivot about the frame and carry along with it the carrier.

20. A cushioning conversion machine as set forth in claim 19, wherein the biasing member is interposed between the carrier and mounting assembly for resiliently biasing the carrier relative to the mounting assembly so that, when the releasable locking device is in its locked position, the biasing member urges the first rotating feed member toward the second rotating feed member.

21. A cushioning conversion machine as set forth in claim 14, wherein the biasing member comprises a coil spring.